

Lab 5 - Requirements Analysis

Thursday, April 2, 2020 3:19 PM

Overall Requirements

- Set up a communication link between a terminal (emulated with Tera Term) and the microcontroller using UART2
- Write a main program which:
 - If an upper case letter is typed on the terminal, the microcontroller echoes back a lower case number
 - If a lower case letter is typed, it is echoed back unchanged.
 - If any other character or number is entered, it echoed back unchanged.
 - Counts each input character and displays a running count on an 8 LED module (modulo 256)

Main program functions:

1. Configure the system and establish the communication link
2. Read data from the UART and maintain and display an input character count
 - a. Check the UART receive buffer status
 - i. If character waiting, input character
 - ii. Examine input character and if necessary, modify before echoing
 - iii. Increment and display character count
 - iv. Wait for next input character

Potential Program Flow

